

“Electrostatic Evaluation of the Propellant Handlers Ensemble”

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Abstract: The Self-Contained Atmospheric Protective Ensemble (SCAPE) used in propellant handling at NASA’s Kennedy Space Center (KSC) has recently completed a series of tests to determine its electrostatic properties of the coverall fabric used in the Propellant Handlers Ensemble (PHE). Understanding these electrostatic properties are fundamental to ensuring safe operations when working with flammable rocket propellants such as hydrazine, methyl hydrazine, and unsymmetrical dimethyl hydrazine. These tests include surface resistivity, charge decay, triboelectric charging, and flame incendivity. In this presentation, we will discuss the results of these tests on the current PHE as well as new fabrics and materials being evaluated for the next generation of PHE.